

Join us for Scientist in the Spotlight— Visit with folks on supercomputers and metric measurement

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How environments affects supercomputer reliability

The earth is under constant assault by cosmic radiation. This radiation includes high-energy neutrons that affect computer electronics and can cause data corruption. You don't typically see this on personal computers because of protections built into them and they are—physically—small targets. Compare that to supercomputers that are made up of densely packed circuits large enough to cover a football field to a height of seven feet. This activity depicts computer memory, how it stores its ones and zeros, and how a neutron bouncing through the memory could cause information corruption. Nathan DeBardeleben, with the High Performance Computing Design group, also illustrates the ways the high-performance computing community detects and corrects errors at the bleeding edge of massive and critical computation.

Measuring with metric

Even though the United States signed the Treaty of the Meter in 1875, we continue to use two sets of measurement units side by side, leading to wasted time and medical errors—among other issues. Stop by and learn from Linda Anderman, with the Lab's Bradbury Science Museum, about the advantages of the metric system. There are scales both old and new to play with and an opportunity to consider if our current path really "measures up."

Join us every second Saturday of the month for Scientist in the Spotlight, a program featuring scientists that have been certified for public outreach through the museum's Scientist Ambassador Academy. These scientists will talk with museum visitors for a couple of hours about their favorite science, technology, engineering, or math (STEM) subject. Conversations are intended for all ages and include interactive hands-on activities that make learning easy and fun. [Learn more about the Scientist Ambassador academy.](#)

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